

PK3

Notice of Allowability	Application No.	Applicant(s)	
	09/578,942	LUI, WILLIAM	
	Examiner	Art Unit	
	Phuoc H. Nguyen	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed on April 28, 2004.
2. ☒ The allowed claim(s) is/are 2-9, 11-18 and 20-39.
3. ☒ The drawings filed on 3/2/04 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brenna A. Brock (Reg. No. 48,509) on August 19, 2004.

The application has been amended as follows:

IN THE CLAIMS: (see Amendment File on May 3, 2004)

Please **replace** claims 34-39 as follows:

34. (New) A method for testing, said method comprising:

coupling one or more modified frame relay sub-interface entities with one or more

corresponding data link layer entities, wherein

the one or more modified frame relay sub-interface entities are internal to

at least one network router,

the one or more corresponding data link layer entities are internal to at

least one unit under test,

each of the one or more modified frame relay sub-interface entities is

configured to function as a data link layer entity, and

the at least one router tests the unit under test as if the unit under test was

connected to N computer systems.

35. (New) The method of claim 34, wherein

N modified frame relay sub-interfaces internal to the at least one router are coupled to N corresponding data link layer entities internal to the at least one unit under test.

36. (New) A system for testing, said system comprising:

one or more modified frame relay sub-interface entities coupled with one or more corresponding data link layer entities, wherein the one or more modified frame relay sub-interface entities are internal to at least one network router, the one or more corresponding data link layer entities are internal to at least one unit under test, each of the one or more modified frame relay sub-interface entities is configured to function as a data link layer entity, and the at least one router tests the unit under test as if the unit under test was connected to N computer systems.

37. (New) The system of claim 36, wherein

N modified frame relay sub-interfaces internal to the at least one router are coupled to N corresponding data link layer entities internal to the at least one unit under test.

38. (New) An apparatus for testing, said apparatus comprising:

means for one or more modified frame relay sub-interface entities coupled with one or more corresponding data link layer entities, wherein the one or more modified frame relay sub-interface entities are internal to at least one network router,

the one or more corresponding data link layer entities are internal to at least one unit under test, each of the one or more modified frame relay sub-interface entities is configured to function as a data link layer entity, and the at least one router tests the unit under test as if the unit under test was connected to N computer systems.

39. (New) The apparatus of claim 38, wherein

N modified frame relay sub-interfaces internal to the at least one router are coupled to N corresponding data link layer entities internal to the at least one unit under test.

Examiner's Statement of Reasons for Allowance

2. This office action is in response to the amendment filed on May 3, 2004.

Previous office action contained claims 1-33. Applicant amended claims 2-3, 5, 8-9, 11-12, 14, 17-18, 20-21, 23, and 26-27, cancelled claims 1, 10, and 19, and added claims 34-39. Amendment filed on May 3, 2004 have been entered and made of record.

3. Claims 2-9, 11-18, and 20-39 are allowed.

4. Claims include limitations that the prior art of record does not appear to teach or render obvious the claimed limitations as recited below.

5. The following is an examiner's statement of reasons for allowance:

Natarajan et al U.S. Patent 6,304,546 teach a system for providing keep-alive detection between end nodes of a virtual circuit in a data network, first and second nodes coupled to a frame relay network, periodically exchange link-layer keep-alive messages

which indicate information regarding configuration and status of the virtual circuit.

However, the prior art of record fails to teach or suggest individually or in combination as stated in claims 28-33, “one or more modified frame relay sub-interface entities internal to at least one network router coupled with one or more corresponding data link layer entities internal to at least one unit under test further include at least one aggregation unit connected between the at least one network router and the at least one unit under test” and with respect to claims 34,36, and 38, prior art of record fails to teach “one or more modified frame relay sub-interface entities internal to at least one network router coupled with one or more corresponding data link layer entities internal to at least one unit under test, each of the one or more modified frame relay sub-interface entities is configured to function as a data link layer entity, and the at least one router tests the unit under test as if the unit under test was connected to N computer systems ” and in combination with other limitations as set forth in the independent claims. Claims 2-9,11-27,35,37, and 39 are allowed due to dependent claims.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuoc H. Nguyen whose telephone number is 703-305-5315. The examiner can normally be reached on Mon -Thu (7AM-4:30PM) and off every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on 703-308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

August 19, 2004



DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100